STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
# POSITION DUTY STATEMENT
PM-0924 (REV 02/2021)

| CLASSIFICATION TITLE | OFFICE/BRANCH/SECTION | |
|---|---|---|
| Research Data Analyst II | Planning & Modal Programs | |
| WORKING TITLE | POSITION NUMBER | EFFECTIVE DATE |
| B-DADT Coordinating Analyst | 900-064-5731-919 | |

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

## GENERAL STATEMENT:

The California Integrated Mobility Program is a greenfield where for the first time Caltrans will be using commercial-grade data skills. Your skills will define the Program and be used directly to ground decisions in data. Work with the team that is helping Californians find and pay for transportation with their phones, starting with transit. Under general supervision of the Benefits Delivery and Decision Transformation (B-DADT) Data Manager  (RDM I), the Research Data Analyst II (RDA II) will independently perform a variety of tasks including data management, complex research, data analysis, and data visualization. As the B-DADT Coordinating Analyst, the incumbent will work collaboratively with a variety of teams and staff at Caltrans to develop data reports and stories, create data visualizations and dashboards, identify data trends and patterns, and perform various related tasks. The B-DADT Coordinating Analyst should be able to lead, formulate and platform the work of a team of Data Analysts and Data Engineers, and communicate data needs to external stakeholders. The B-DADT Coordinating Analyst will be expected to seek and incorporate user feedback and develop and update their products in an iterative and agile manner using version control and statistical programming languages such as Python or R.

Experience in Transit or Finance or Finance is welcome but not required.  The B-DADT Coordinating Analyst will assist in the development of performance metrics, beginning with Division of Rail and Mass Transit Data, and supporting California Integrated Travel Project goals. The B-DADT Coordinating Analyst should have a data-driven policymaking background and be able to assist in guiding policymakers on how to translate golas into data, and data into goals. A Masters degree in Data Science, Finance, Statistics, Mathematics or Public Policy is preferred but not required.

The B-DADT Coordinating Analyst will help the California Integrated Mobility Program better serve the people of California by unlocking key insights into our data and sharing it with the public, state agencies, and oversight entities while driving the adoption of the General Transit Feed Specification and contactless payments. The B-DADT Coordinating Analyst will communicate with stakeholders and respond to inquiries related to the Caltrans Geoportal transparency website and contribute to the maintenance and expansion of data on that site. The B-DADT Coordinating Analyst swill also assist the B-DADT Research Data Manager with various assignments and reports as required. Effective handling of these complex tasks is critical to Caltrans' continued success.

## CORE COMPETENCIES:

As a Research Data Analyst II, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Managing Change:** Demonstrating support for organizational changes needed to improve the department's effectiveness; supporting, initiating, sponsoring and implementing change. (Strengthen Stewardship and Drive Efficiency Advance Equity and Livibilty in all Communities - Integrity)

- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Lead Climate Action  - Integrity)

- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Strengthen Stewardship and Drive Efficiency  - Integrity)

- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Strengthen Stewardship and Drive Efficiency  - Integrity)

- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. ( Advance Equity and Livibilty in all Communities - Equity)

- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Strengthen Stewardship and Drive Efficiency  - Equity)

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- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Cultivate Excellence - Integrity)

- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Strengthen Stewardship and Drive Efficiency - Innovation)

- **Organizational Skills:** Keeps work prioritized and organized. Logically approaches situations. (Cultivate Excellence - Integrity)

## TYPICAL DUTIES:

| Percentage Essential (E)/Marginal (M)[1] | Job Description |
|---|---|
| 40%   E | **Data Science and Management**<br>* Independently research, identify, analyze, predict, and interpret trends or patterns in complex data sets to inform the California Integrated Mobility Program's efforts to support transportation providers.<br>* Perform complex statistical analyses to test research hypotheses and to formulate conclusions and recommendations.<br>* Establish work plans and monitor the progress of research activities to ensure timely completion of defined objectives.<br>* Use software programs such as R, Python, SQL and Microsoft Excel to to import, prepare and analyse data.<br>* Gather data for analyses from multiple cloud and on-premises databases and systems within an enterprise environment while following data governance and security guidelines.<br>* Guide and mentor Data Analysts on the performance of above. |
| 30%   E | **Data Visualization and Reporting**<br>* Collaborate with users and California Integrated Mobility Team members to create data visualization, dashboards, and reports for internal and external clients.<br>* Determine the needs and ethical implications of each analysis.<br>* Assist with the Title VI and Title IX implications of Data Reporting.<br>* Visualize and describe quantitative and qualitative data to effectively communicate key insights that help client departments and the California Integrated Mobility Program effectively understand and interact with data.<br>* Document and present analysis results to management and other California Integrated Mobility Program teams, verbally and in writing. Write reports in a professional, well-organized and accessible format consistent with best practices in public policy. Customize presentations and reports depending on the technical expertise of the audience. Explain the data analysis, trends and results used to substantiate conclusions, program and policy strategies and recommendations.<br>* Expertise in making reports reproducible, automating, parameterizing and scheduling them as jobs to be shared with California's 400+ transit providers. |
| 15%   E | **User Research and Interaction, Training, Procurement**<br>* Consult with other Caltrans Divisions, such as DRSI and DLA to gather and organize user feedback, questions and concerns for analysis.<br>* Design, develop and administer surveys and other data collection instruments. Determine survey population, sampling strategies, research questions, database design elements and compilation. Organize, analyze and interpret survey results.<br>* Facilitate meetings on analytical topics, consult with other California Integrated Mobility Program teams, and serve as a subject matter expert on multidisciplinary teams.<br>* Assist in the scoping of products, platforms and standardization of analytics best practices across Caltrans. |

| 10% | E | Administrative and Logistical Support<br>* Coordinate training, meetings, and events as directed by the B-DADT Research Data Manager and the California Integrated Mobility Program Manager.<br>* Update and maintain lists of Advisory committee members, designees, and contacts in each partner agency, Legislative staffers, CalSTA and others, as asssigned.<br>* Monitor and respond to inquiries to the California Integrated Mobility ticketing process. |
| --- | --- | --- |
| 5% | M | Perform other related duties as required to fulfill Cal-ITP mission, goals and objectives. Additional duties may include, but are not limited to, assisting where needed within the team/unit, which may include special assignments. |

[1]ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.
  MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS
The B-DADT Research Data Analyst II reports to the B-DADT Research Data Manager

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
Detailed knowledge of: Data analysis methods and techniques including gathering and collectionof structured and unstructured data, as well as general principles, concepts and terminology used in research; trend analysis procedures; practices required to ensure and maintain data security, including securely transmitting confidential data; experimental design procedures; problem-solving techniques and processes to identify and resolve issues related to the completion of work assignments; advanced mathematical techniques and descriptive statistical analysis techniques and methods; time management techniques to provide for efficient prioritization and completion of projects and assignments; software to prepare spreadsheet summaries, reports, charts, and tables; and departmental policies and procedures.

Ability to query, mine, compile, analyze and manipulate data; prepare research and statistical reports; analyze written and numerical data regarding general governmental problems; communicate effectively both orally and in writing to individuals and gropus related to the area of research; present ideas and information effectively; design and validate studies and analyze the accuracy of data collected; analyze quantitative and qualitative data to reach sound conclusions and/or make recommendations; identify improvements and originate new solutions to problems; identify required data, information, materials and resources needed to complete/perform a project; reason logically and creatively and use a variety of analytical techniques to resolve or provide information regarding complex research and data problems; consult with and advise administrators or other interested parties on a wide variety of subject-matter areas; recognize when issues, activities, and/or decisions need to be elevated to management, and communicate information effectively to others; manage a workload consisting of multiple projects and assignments; complete work under critical timelines to meet project objectives and deadlines; and be objective and flexible to adapt to changes in priorities and work assignments.

The B-DADT Coordinating Analyst will use tact and interpersonal skills to develop constructive and cooperative, working relationships with others, to facilitate communications to improve the work environment and increase productivity. Fingerprinting and background check may be required.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Failure to manage benefits delivery and to staff decisions with vital data may result in loss of funding, loss of benefits, missed deadlines and deliverables, loss of grants and loss of opportunities to compete for grants. Inefficient and incomplete management of data may damage Caltrans' reputation with other agencies, projects or programs and the public.

Caltrans wants to improve staff competency and radically improve customer experience as well as data management pertaining to its outdated, paper-based, and often siloed grants, asset management and performance programs. Siloes drive up costs, increase risk of error, reduce efficiencies and mask constraints from market solutions as well as outcome and data-driven management that support Caltrans stakeholders, policymakers and the public.

PUBLIC AND INTERNAL CONTACTS

The incumbent will be a subject matter expert within the Department and have contact with all levels of staff and management throughout the Department, including other Caltrans districts and divisions.  The incumbent will have regular contact with various internal and external stakeholders with a goal of driving collaboration, alignment and data-driven decision-making. In addition, the incumbent will be responsible for representing the Department at various meetings or in contact with the general public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
The incumbent may be required to sit for periods of time using a keyboard and video display terminal. May also be required to lift, carry, and move boxes of material under 25 pounds from one location to another. Employee will occasionally bend, stoop, kneel to pull or push objects, grasp objects with fingers, stand for long periods of time, and twist the body or neck in a sideways motion, either seated or standing.

The incumbent should be able to quickly adapt behavior and work methods in response to new information/priorities, and unexpected obstacles; multi-task; effectively interact with many levels of people in a cooperative manner; be decisive; take appropriate actions; and complete tasks or projects with a short notice. The incumbent should be able to deal effectively with pressure, maintain focus and intensity yet remain optimistic and persistent, even under adversity.

The incumbent shall act in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public services; develop new insights into situations and apply innovative solutions to make organizational improvements; be willing to take risks and initiate actions that involve a deliberate risk to achieve a recognized benefit or advantage; and value cultural diversity and other individual differences in the workforce.

WORK ENVIRONMENT

The incumbent can be fully remote with frequent e-meetings and predictable travel to Caltrans Headquarters. There may be occasional travel within the State to Caltrans Districts, and to transportation providers.

I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE (Print)

| EMPLOYEE (Signature) | DATE |
|---|---|
|  |  |

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

| SUPERVISOR (Signature) | DATE |
|---|---|
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